UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,448	07/18/2003	Tsutomu Ohishi	240473US2	1119

22850 7590 11/02/2010

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
KAU, STEVEN Y	

ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
11/02/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/621,448	OHISHI ET AL.	
	Examiner	Art Unit	
	STEVEN KAU	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 October 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-11,13,15-19,21,23 and 27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-11,13,15-19,21,23 and 27* is/are rejected.

7)☒ Claim(s) *27, 13, 15-19 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/06/2010 has been entered.

Response to Amendment

2. This is in response to Applicant(s) arguments filed on 9/8/2009 and 10/29/2009.

- The following is the current status of claims:

  Claims 3, 12, 14, 20, 22 and 24-26 have been canceled. Claim 27 has been added as an independent claim. Claims 1, 2, 4-11, 13, 15-19, 21, 23 and 27 remain pending for examination, with claims 1, 23 and 27 being independent. Claims 1, 13, 15-19, 21 and 23 have been amended.

- Response to Remarks/Arguments:

  (1) Applicant's arguments, "Claims 13 and 15-22 Rejections – 35 U.S.C. §101", page 9, Remarks/Arguments, have been fully considered and are persuasive. In light of applicant's amendments in which the independent

claim 22 has been canceled, and the new claim 27, recites "non-transitory computer readable medium" to exclude the transitory embodiments, the rejections of claims 13 and 15-22 under 35 U.S.C. § 101 have been withdrawn from the record.

(2) Applicant's arguments with respect to the rejection of claims 1, 4-10, 15-20 and 22 under 35 U.S.C. 102(e), pages 9-13, Remarks,, 10/06/2010, have been fully considered but are moot in view of the new ground(s) of rejection due to the amendments.

(6) Applicant's arguments with respect to the rejection of claims 23 and 27 under 35 U.S.C. 103(a), pages 10 and 13, Remarks, 10/06/2010, have been fully considered but are moot in view of the new ground(s) of rejection due to the amendments.

Specification

3. Title of the Invention: The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. See 37 CFR 1.72(a) and MPEP § 606.

The following title is suggested: "Image Forming Apparatus That Can Launch External Application Selectively After The Shipment of The Apparatus".

Claim Objections

4. Claims 13, 15-19, 21 and 27 are objected to because of the following informalities:

With respect to claim 27, which is directed to a non-transitory computer readable medium. However, the preamble in the claim, recites, "the method comprising" is inconsistent with what is claimed. The examiner considers that it is a typo error and appropriate correction is required.

Claims 13, 15-19 and 21, dependent claims from claim 27, cites "The computer readable medium as claimed in claim 27", which does not agree with what claim 27 claims. Claim 27 claims, "A non-transitory computer readable medium". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 2, 4, 5, 8, 9, 11, 13, 15, 16, 19, 21 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiklof et al (US 6,618,162) (Wiklof) in view of Schwerin (US 6,691,187) (Schwerin).

(1) Regarding claim 1.

Wiklof discloses an image forming apparatus to which applications can be added (**referring Printer 18 of Fig. 2, and Fig. 1, Printer 18 communicates with Servers 20 and 28 and applications, e.g. setup kernel, upgrades, selected modules and software, etc., can be added to the printer, col 1, lines 45-64**), the image forming apparatus comprising: an auxiliary storage interface part (**referring Communication Port 62 of Fig. 2**) configured to interface with an auxiliary storage device (**referring to Fig. 1, Server 20 serves as a library for files transmitting in the network, col 3, lines 16-25, and Server 28 stores the most recent set of software, e.g. executable instructions and most recent upgrades, col 5, lines 18-25; thus, Servers 20 and 28 must have an auxiliary storage device for serving as a library and upgrades to which the network printers can communicate with for upgrades**) that stores one or more applications (**e.g. library of files, and most recent upgrades, etc., as discussed above**), such that the one or more applications are installed on the auxiliary storage device (**as discussed above, Server 20 and 28 serve as an auxiliary**

storage to Network Printers 16 and 18; Server 20 stores a library of files and Server 28 stores the most recent software and upgrades maintained by printer manufacturer or vendor), and that stores an execution command (**referring to Figs. 4, 5 and 6B, Steps 118 and 120, executable code is downloaded from Server 28 to Printer 18, col 5, lines 10-20; that is, the executable code must have the execution command as disclosed in Step 138 of Fig. 6B, so that microprocessor 40 can perform code execution, upgrade completion and to run Printer 18, col 7, lines 1-2**); a part (**a component, a circuitry or a device; In this case, referring to Display 16 of Fig. 2**) configured to display a setting screen that a display part of the image forming apparatus (**referring to Printer Control 60 of Fig. 2, sets a graphical user interface, or GUI on Display 61, col 4, lines 19-21; one embodiment of GUI usage is shown in Fig. 3, which provides a variety of user selectable setup options, e.g. printing menu, printer configuration, etc., col 4, lines 35-46; and other embodiment is that the printer is linked to a configuration homepage and displaying the setup options menu at the printer for software upgrades directly from a manufacturer, col 4, lines 47-53, and col 11, lines 44-48**), and to store information input as launch selection information (**referring to Figs. 4, 5 and 6, Step 120, Printer receives executable code, which represent any recent upgrades and load into memory, e.g. RAM 46, col 4, line 67 to col 5, line 25**); and an application launch part (**a component or a device communicates with a remote auxiliary storage device, e.g. a server for executing the downloaded software, e.g. the most recent upgrades; in this case, Microprocessor 40 of Printer 18 communicates with Server 28, and**

downloads executable code from Server 28 and executes the downloaded executable code as disclosed in Fig. 6B) configured to access the launch selection information (**referring to Figs. 6A and 6B, a process of more explicitly demonstrates that Printer 18 receives the selected modules and loads the executable instructions into memory RAM 46, col 6, lines 55-60, Step 120 of Fig. 6B, then Step 122, Microprocessor verifies checksum, col 5, lines 7-8; that is, microprocessor has to access the launch selection information stored in RAM 46 in order to calculate its checksum**), and to launch (**launch, or load, or download the executable code and execute the code, and to install the upgrades**) the one or more applications from the auxiliary storage device based on the accessed launch selection information by issuing the execution command which is stored in the auxiliary storage device (**referring to Fig. 6B, Steps 124-138, as discussed above, applications, e.g. software upgrades is downloaded from Server 28 to the memory of Printer 18, Microprocessor 40 of Printer 18 accesses to the launch selection information, e.g. upgrades, library modules, etc., to verifies the checksum, and then according to the executable code instruction to link the selected modules and executes the executable code which includes execution command, and is originally stored in Server 28 as discussed above, col 6, lines 55-67; thus, the launching of a upgrades to Printer 18 is completed, col 7, lines 1-2**).

Wiklof does not explicitly teach that display a setting screen that receives launch selection information and to store information input via the setting screen as launch

selection information, the launch selection information identifying at least the auxiliary storage device from among a plurality of kinds of auxiliary storage devices.

However, in the same field of endeavor, Schwerin teaches that display a setting screen that receives launch selection information **(referring to Fig. 6, launching selection information is provided)**, and to store information input via the setting screen as launch selection information **(referring to Fig. 6, the label of "BUTTON 2", launch data is uploaded to "drive C:"; that is, saving launch data in to a local "drive C:" via the setting screen)**, the launch selection information identifying at least the auxiliary storage device from among a plurality of kinds of auxiliary storage devices **(referring to Fig. 6, the labels of "READER 1" and "READER 2" designating "Drive E:" and "Drive G:", respectively; these drives are the location of the auxiliary storage devices, e.g., a removable digital storage devices, e.g., compact flash storage or a memory cards, col 3, line 62 to col 4, line 19)**.

Prior art Schwerin discloses a network system of Figure 1, in that a computer and a printer are connected to Access Device 10 which has media reader capable to communicate with removable digital storage devices, e.g. USB compatible storage device such a flash drive or PCMCIA. In particular, Schwerin discloses a graphical user interface which provides user the launching selections, saving launch data in to a local drive, and identifying the location of storage device in which launch data is obtained from. Prior art Wiklof discloses a network system of Figure 1, in that computers, servers and printers are connected in the network. More particularly, Wiklof discloses processes of Figures. 4, 5 and 6A-6B, in that a printer, e.g. Printer 18 has an auxiliary storage

interface for launching any recent upgrades provided by printer manufacturer, or vendor after the printer is shipped. Thus, prior art Schwerin and Wiklof are the same field of endeavor. The examiner realizes that prior art Schwerin teaches a graphical user interface implemented in a computer to launching data from an auxiliary storage. However, the examiner considers that a networked printer having a microprocessor, a display, a network interface and memories as shown in Figure 2, is practically a network entity, e.g. a computing device with image processing capability, e.g. printing. Thus, the teaching of Schwerin is combinable with Wiklof to achieve a result of easily upgradable and permits easy and efficient testing and debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Wiklof reference to include "display a setting screen that receives launch selection information and to store information input via the setting screen as launch selection information, the launch selection information identifying at least the auxiliary storage device from among a plurality of kinds of auxiliary storage devices" as taught by Schwerin, in order to achieve a result of easily upgradable and permits easy and efficient testing and debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

The suggestion/motivation for doing so would have been to enhance the image forming apparatus of Wiklof for improving user friendly access to launching information, such that allowing a user to access image data (e.g. selecting the most recent

upgrades) stored on a removable digital storage medium and to execute various functions and processing of the image data (col 2, lines 13-17, Schwerin).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the Wiklof and the Schwerin references in order to obtain the invention as specified in claim 1.

(2) Regarding claim 2, in accordance with claim 1.

Wiklof discloses wherein the auxiliary storage device is at least one of a hard disk device (**referring to Fig. 1, Server 28 stores upgrades, col 5, lines 21-25; it is well known in the art that a server, e.g. a computer, must equipped with a hard disk device to store upgrades and other application software**), and a computer connected to the image forming apparatus via a network (**referring to Fig. 1 again, there are computers connected to printers via the network**).

Wiklof does not teach a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus.

However, Schwerin teaches a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus (**referring to Fig. 2, Access Device 10 is incorporated within Printer 12, and Card Reader 20 is the interface for PCMCIA memory card, which is removable from Printer 12 of Fig. 2, col 4, lines 6-8 and col 4, lines 37-40**).

As discussed above, the teaching of Schwerin is combinable with Wiklof in order to achieve a result of easily upgradable and permits easy and efficient testing and

debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Wiklof reference to include "a recording medium removable from the image forming apparatus without disassembling any other portion of the image forming apparatus" as taught by Schwerin, in order to achieve a result of easily upgradable for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

The suggestion/motivation for doing so would have been to enhance the image forming apparatus of Wiklof for improving easy and efficient printer upgrades, such that allowing a user to access image data (e.g. selecting the most recent upgrades) stored on a removable digital storage medium and to execute various functions and processing of the image data (col 2, lines 13-17, Schwerin).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the Wiklof and the Schwerin references in order to obtain the invention as specified in claim 2.

(3) Regarding claim 4, in accordance with claim 1.

Wiklof discloses wherein the application launch part launches the application (**selected library modules, upgrades, etc.,**) by referring to information on the application (**the application launch part, e.g. Microprocessor 40 links to selected library modules to form executable instruction to run printer 18, col 6, lines 55-66; that is, selected library module(s) in the executable program must refer to**

information of the application for launching such software, e.g. the most recent versions of software, discussed in col 2, lines 5-10 and col 5, lines 7-25).

(4) Regarding claim 5, in accordance with claim 4.

Wiklof discloses wherein the information referred to by the application launch part is address information of the application (**e.g. "the GUI 70 (for display on the display 61, col 4, lines 35-37) may be implemented as a configuration homepage transmitted to the display 61 from the printer manufacturer or vendor's website over the World Wide Web (WWW)", col 13, lines 47-50; it is well known in the art that a website has a URL link or a URL address**).

(5) Regarding claim 8, in accordance with claim 1.

Wiklof does not teach that the application launch part refers to setting information including information indicating applications to be launched, and the application launch part launches the application indicated in the information.

In the same field of endeavor, Schwerin teaches the application launch part refers to setting information including information indicating applications to be launched (**referring to Fig. 6, displays indicates a plurality of applications to be launched, col 7, lines 36-39**), and the application launch part launches the application indicated in the information (**col 6, lines 39-48 disclose an embodiment that, System Tray Program 46 can be configured to launch applications and functions**).

As discussed in claim 1 above, the teaching of Schwerin is combinable with Wiklof in order to achieve a result of easily upgradable and permits easy and efficient

testing and debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Wiklof reference to include "the application launch part refers to setting information including information indicating applications to be launched, and the application launch part launches the application indicated in the information" as taught by Schwerin, in order to achieve a result of easily upgradable for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

The suggestion/motivation for doing so would have been to enhance the image forming apparatus of Wiklof for improving easy and efficient printer upgrades, such that allowing a user to access image data (e.g. selecting the most recent upgrades) stored on a removable digital storage medium and to execute various functions and processing of the image data (col 2, lines 13-17, Schwerin).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the Wiklof and the Schwerin references in order to obtain the invention as specified in claim 8.

(6) Regarding claim 9, in accordance with claim 8.

Wiklof does not teach that a part for displaying a setting screen for setting the setting information on a display part of the image forming apparatus, and storing information input from the setting screen as the setting information.

In the same field of endeavor, Schwerin teaches that a part for displaying a setting screen for setting the setting information on a display part of (the computer)

(**referring to Fig. 6, a graphic user interface displaying the setting screen**), and storing information input from the setting screen as the setting information (**as discussed in claim 1 above, Schwerin discloses Fig. 6, that the label of "BUTTON 2", launch data is uploaded to "drive C:"; that is, saving launch data in to a local "drive C:" via the setting screen**).

As discussed in claim 1 above, the teaching of Schwerin is combinable with Wiklof in order to achieve a result of easily upgradable and permits easy and efficient testing and debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Wiklof reference to include "a part for displaying a setting screen for setting the setting information on a display part of the image forming apparatus, and storing information input from the setting screen as the setting information" as taught by Schwerin, in order to achieve a result of easily upgradable for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

The suggestion/motivation for doing so would have been to enhance the image forming apparatus of Wiklof for improving easy and efficient printer upgrades, such that allowing a user to access image data (e.g. selecting the most recent upgrades) stored on a removable digital storage medium and to execute various functions and processing of the image data (col 2, lines 13-17, Schwerin).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the Wiklof and the Schwerin references in order to obtain the invention as specified in claim 9.

(7) Regarding claim 11, in accordance with claim 2.

Wiklof discloses wherein the image forming apparatus receives an application from the computer connected to the image forming apparatus via a network by using a http protocol or a tip protocol (**referring to Fig. 1, a network system, in that plural computers and printers connect to Servers 20 and 28; col 4, lines 47-50 discloses that GUI 70 of Printer 18 can display the homepage of the manufacturer web site; this indicates that the http protocol is used for the network; col 9, lines 30-33 and lines 46-49 disclose that at least one library module resident in a networked computer and linking library modules to form executable instructions; thus, the image forming apparatus receives at least one application, or at least one library module from the networked computer**), and the application launch (**see the discussion in claim 1 above**) part launches the received application (**as discussed in claim 6 above, Step 138 of Fig. 6B, the executable code is downloaded from Server 28 to Printer 18 and executed after the checksum is verified and the selected library module(s) is linked to formed executable program, col 6, line 55 to col 7, line 2; that is, upgrade is installed in Printer 18; as an example for upgrading to print higher resolution discussed in col 6, lines 20-30**).

(8) Regarding claim 27.

Claim 27 is directed to a non-transitory computer readable medium storing program code for causing an image forming apparatus to execute of method of launching an application and recites identical features of claim 1.

Thus, claim 27 is rejected for the same reason discussed in the rejections of claim 1 above.

(9) Regarding claim 13, in accordance with claim 27.

Claim 13 is directed to a computer readable storage medium claim which substantially corresponds to operation of the device in claim 2, with processing steps directly corresponding to the function of device elements in claim 2. Thus, claim 13 is rejected as set forth above for claim 2.

(10) Regarding claim 15, in accordance with claim 27.

Claim 15 is directed to a computer readable storage medium claim which substantially corresponds to operation of the device in claim 4, with processing steps directly corresponding to the function of device elements in claim 4. Thus, claim 15 is rejected as set forth above for claim 4.

(11) Regarding claim 16, in accordance with claim 15.

Claim 16 is directed to a computer readable storage medium claim which substantially corresponds to operation of the device in claim 5, with processing steps directly corresponding to the function of device elements in claim 5. Thus, claim 15 is rejected as set forth above for claim 5.

(12) Regarding claim 19, in accordance with claim 15.

Claim 19 is directed to a computer readable storage medium claim which substantially corresponds to operation of the device in claim 8, with processing steps directly corresponding to the function of device elements in claim 8. Thus, claim 19 is rejected as set forth above for claim 8.

(13) Regarding claim 21, in accordance with claim 13.

Claim 21 is directed to a computer readable storage medium claim which substantially corresponds to operation of the device in claim 11, with processing steps directly corresponding to the function of device elements in claim 11. Thus, claim 21 is rejected as set forth above for claim 11.

(14) Regarding claim 23.

Claim 23 is directed to an image forming apparatus and recites identical features in claims 1 and 2. Thus, claim 23 is rejected for the same reasons discussed in the rejections of claims 1 and 2 above.

8. Claims 6 and 17are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiklof et al (US 6,618,162) (Wiklof) in view of Schwerin (US 6,691,187) (Schwerin) as applied to claims 1 and 27 above, and further in view of Ozawa et al (US 2002/0149791) (Ozawa).

(15) Regarding claim 6, in accordance with claim 1.

Wiklof discloses wherein the application launch part launches the application if the application is installed at the location **(referring to Fig. 6B, Step 138, the executable code is downloaded from Server 28 to Printer 18 and executed after**

the checksum is verified and the selected library module(s) is linked to formed executable program, col 6, line 55 to col 7, line 2; that is, upgrade is installed in Printer 18; as an example for upgrading to print higher resolution discussed in col 6, lines 20-30).

Wiklof in view of Schwerin does not teach wherein the application launch part determines whether the application is installed at the location according to presence or absence of predetermined information on the application.

In the same field of endeavor, Ozawa teaches that the application launch part determines whether the application is installed at the location according to presence or absence of predetermined information on the application (**referring to Fig. 7, Step S106, software version is determined, Pars. [0127] and [0128]**).

Prior art Ozawa discloses a network system of Figures 1 and 2, in which an image forming apparatus is connected to Server 20 as an administrative storage via the network. In particular, Ozawa teaches that the image forming apparatus judges whether or not the software version is current and most updated before launching a new update. As discussed in claim 1 above, prior art Wiklof discloses a network system of Figure 1 and processes of Figures. 4, 5 and 6A-6B, in that a printer, e.g. Printer 18 has an auxiliary storage interface for launching any recent upgrades provided by printer manufacturer, or vendor after the printer is shipped and/or in used. Thus, prior art Ozawa and Wiklof are the same field of endeavor and the teaching of Ozawa is combinable with Wiklof. By combining the teaching of Ozawa with Wiklof, it would have been to improve software updating process time because it is a common sense that if

the version of the software currently running is the latest version and therefore, it does not need to continue communicating with the auxiliary storage device in the network. Thus, it reduces image forming apparatus network communication time, improves the apparatus performance, and in addition, the network data bandwidth is also improved.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Wiklof reference to include "the application launch part determines whether the application is installed at the location according to presence or absence of predetermined information on the application" as taught by Ozawa, in order to improve the efficiency of launching software updates/upgrades process and to reduce network traffics as discussed above.

The suggestion/motivation for doing so would have been to enhance the service/maintenance of the image forming apparatus of Wiklof to reduce network communication time and to improve the apparatus performance when the software version is judged as current and no upgrades or updating is needed.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the Wiklof and the Ozawa references in order to obtain the invention as specified in claim 6.

(16) Regarding claim 17, in accordance with claim 27.

Claim 17 is directed to a computer readable storage medium claim which substantially corresponds to operation of the device in claim 6, with processing steps directly corresponding to the function of device elements in claim 6. Thus, claim 17 is rejected as set forth above for claim 6.

9. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiklof et al (US 6,618,162) (Wiklof) in view of Schwerin (US 6,691,187) (Schwerin) as applied to claims 1 and 27 above, and further in view of Nomura et al (US 7,693,961) (Nomura).

(17) Regarding claim 7, in accordance with claim 1.

Wiklof in view of Schwerin does not disclose wherein the application launch part refers to setting information including information indicating whether a predetermined application is to be launched, and the application launch part launches the predetermined application if the setting information includes information indicating the predetermined application is to be launched.

In the same field of endeavor, Nomura teaches that the application launch part refers to setting information including information indicating whether a predetermined application is to be launched (**referring to Fig. 6 (c), there are predetermined applications for the selection and Fig. (d) displays that the application "ELECTRIC FILE (COLOR READING)" and "installing New Version", col 6, lines 14-20, indicating that a selected or predetermined application is to be launched**), and the application launch part launches the predetermined application if the setting information includes information indicating the predetermined application is to be launched (**as discussed above, Fig. 6(d) displays that the application indicated is being installed, col 6, lines 48-58**).

Prior art Nomura discloses a network system of Figure 1, in that a plurality of printers connected to a server via the network. In particular, Nomura discloses an image forming apparatus operation environment judgment system/method, in which a graphical user interface is used to provide user the launching selections, indication of the predetermined application being installed or launched. As discussed above, prior art Wiklof discloses a network system of Figure 1, in that computers, servers and printers are connected via the network. More particularly, Wiklof discloses processes of Figures. 4, 5 and 6A-6B, in that a printer, e.g. Printer 18 has an auxiliary storage interface for launching any recent upgrades provided by printer manufacturer, or vendor after the printer is shipped and/or in used. Thus, prior art Nomura and Wiklof are the same field of endeavor. Therefore, the teaching of Nomura is combinable with Wiklof to achieve a result of easily upgradable and permits easy and efficient testing and debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Wiklof reference to include "the application launch part refers to setting information including information indicating whether a predetermined application is to be launched, and the application launch part launches the predetermined application if the setting information includes information indicating the predetermined application is to be launched" as taught by Nomura, in order to achieve a result of easily upgradable and permits easy and efficient testing and

debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

The suggestion/motivation for doing so would have been to enhance the image forming apparatus of Wiklof for improving user friendly access to launching information, such that a predetermined application being installed is displayed and therefore, the user is ensured that the application being installed is operable in the operation environment of the image forming apparatus (col 1, lines 35-61, Nomura).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the Wiklof and the Nomura references in order to obtain the invention as specified in claim 7.

(18) Regarding claim 18, in accordance with claim 27.

Claim 18 is directed to a computer readable storage medium claim which substantially corresponds to operation of the device in claim 7, with processing steps directly corresponding to the function of device elements in claim 7. Thus, claim 18 is rejected as set forth above for claim 7.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiklof et al (US 6,618,162) (Wiklof) in view of Schwerin (US 6,691,187) (Schwerin) as applied to claim 1 above, and further in view of Volkov et al (US 7,130,881) (Volkov).

(19) Regarding claim 10, in accordance with claim 1.

Wiklof in view of Schwerin does not teach a virtual application service that operates as a client process for ~~the~~ services modules and operates as a server process

for the applications, wherein the virtual application service includes the application launch part.

However, in an analogous field of endeavor, Volkov teaches a virtual application service that operates as a client process for services modules and operates as a server process for the applications, wherein the virtual application service includes the application launch part (**referring to Fig. 2, "Execution and launch control for the applications 208a 208c is provided by the harness server 206 and the harness clients 204a 204b using virtual service modules", col 4, lines 1-4; that is, the virtual service modules must include an application launch part so that applications 208a and 208c are under execution and launch control as stated**).

Prior art Volkov discloses a network system of Fig. 2, in that Harness Clients 204a and 204b are connected to Harness Server 206 via the network. In particular, Volkov teaches a remote administration system by using virtual service modules to manage the application execution and launch control without the presence of a field engineer in the site, or execution and launch applications manually. As discussed above, prior arts Wiklof and Schwerin teach printer-server-client network system for image forming apparatus software updates and or upgrades through the network. Thus, the teaching of Volkov is applicable to Wiklof and Schwerin references since doing so would have been to enhance the networked printers maintenance and services by using virtual service modules, especially when multiple networked printers are required for the services.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have modified Wiklof reference to include "a virtual application service that operates as a client process for ~~the~~ services modules and operates as a server process for the applications, wherein the virtual application service includes the application launch part" as taught by Volkov, in order to achieve a result of easily upgradable and permits easy and efficient testing and debugging over a network for the image forming apparatus specified in Wiklof reference (col 2, lines 33-36, Wiklof).

The suggestion/motivation for doing so would have been to enhance the networked printers maintenance and services by using virtual service modules, especially when multiple networked machines and or multiple applications are required for the services (col 1, lines 31-63, Volkov).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the Wiklof and the Volkov references in order to obtain the invention as specified in claim 10.

CONTACT INFORMATION

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Steven Kau/
Examiner, Art Unit 2625
October 28, 2010